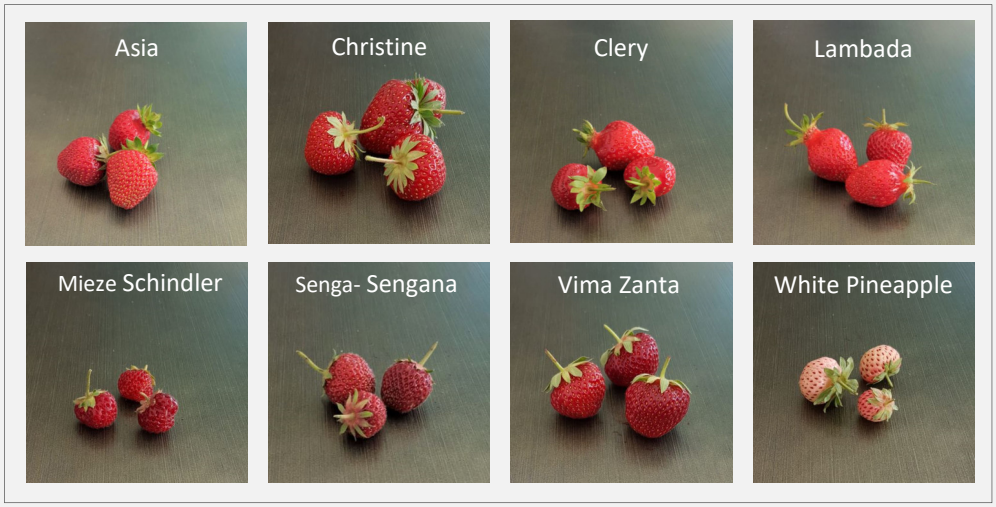
Organic acids in strawberries



Results:

	content [mg/kg]							
	Asia	Christine	Clery	Lambada	Mieze Schindler	Senga-Sengana	Vima Zanta	White Pineapple
Nitrate	38	35	10	18	4	47	9	13
Citrate	9046	5775	6331	9590	9426	6809	5755	12298
Malate	1222	1126	990	887	1940	1900	629	980
Ascorbate	<1	278	162	23	<1	6	<1	122
Sum Citrate+Malate	10268	6900	7320	10477	11366	8709	6384	13279

Conclusions:

- **Citric acid and Malic acid are the main organic acids in strawberries.**
- **The content and the relation of citrate and malate differs in the different sorts of strawberries.**
- **White Pineapple shows the highest content of organic acids and Vima Zanta the lowest.**
- **The content on nitrate could be caused by fertilization or by the degradation of amino acids.**

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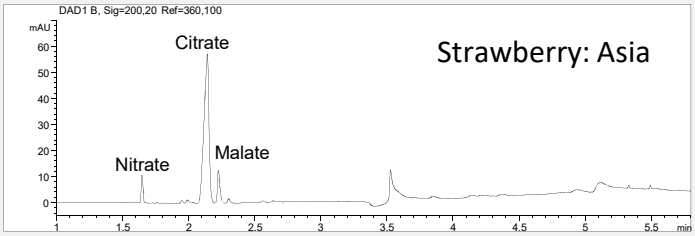
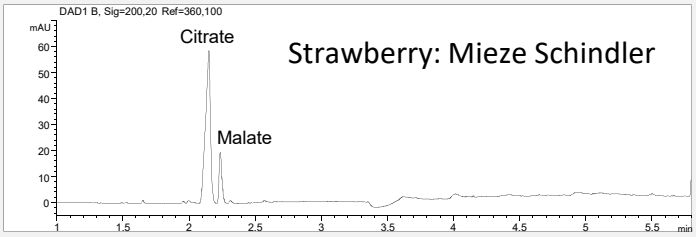
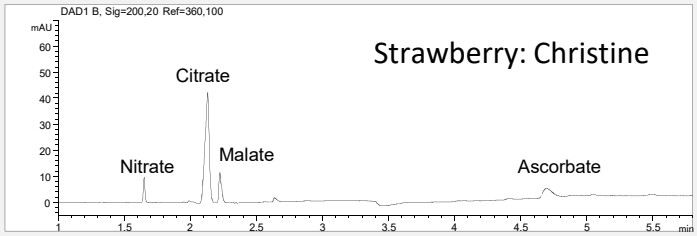
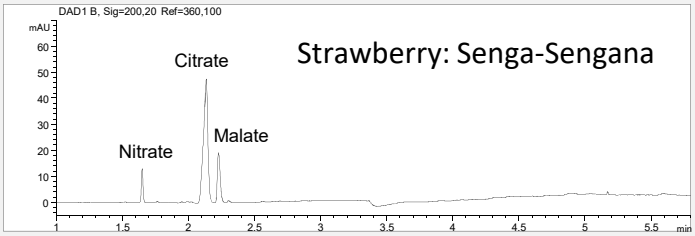
Sample preparation:

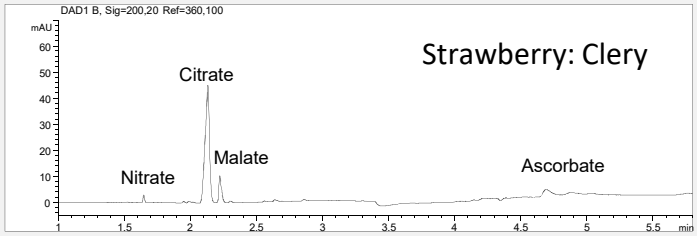
- **Three fruits of each sort were pureed and deep-frozen.**
- **Immediately before the measurement, the puree was thawed.**
- **Each puree was diluted 1:5 using water and centrifuged to separate insoluble solids.**
- **Before injection, each sample was diluted again 1:4, resulting in a total dilution of 1:20.**

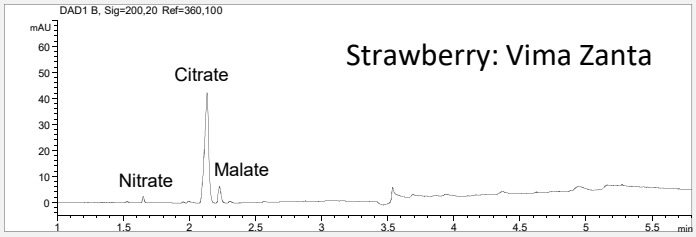


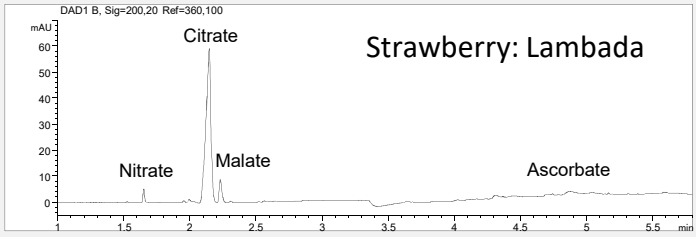


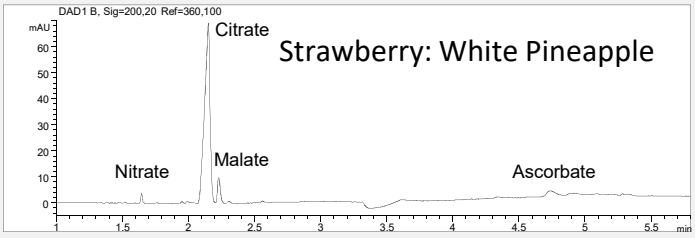












Experimental conditions:

- **Mode: CZE**
- **Electrolyte: Phosphate**
- **Capillary: PVA coated, 50 µm I.D., 56 cm effective length**
- **Injection: 50 mbar, 15 s**
- **Detection: direct, 200 nm for ascorbic acid: 260 nm**
- **Separation: 25°C, -30 kV.**